

ANALYTICAL RESULTS

Prepared for:

Langan
500 Hyde Park
Doylestown PA 18901

215-348-7101

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425**SAMPLE GROUP**

The sample group for this submittal is 953719. Samples arrived at the laboratory on Tuesday, August 02, 2005. The PO# for this group is SUNOCO PHILLY REFINER.

Client DescriptionS-222-080105 Grab Water Sample
S-224-080105 Grab Water Sample
S-223-080105 Grab Water Sample
S96-080105 Grab Water Sample**Lancaster Labs Number**4575232
4575233
4575234
4575235ELECTRONIC SUN: Aquaterra Tech.
COPY TO
1 COPY TO LL
1 COPY TO Langan
ELECTRONIC Langan
COPY TO

Attn: Brad Spancake

Attn: Angela Miller

Attn: Jason Hanna

Attn: Joseph Catricks

Questions? Contact your Client Services Representative
Angela M Miller at (717) 656-2300

Respectfully Submitted,



Michele J. Smith
Group Leader



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 2

Lancaster Laboratories Sample No. WW 4575232

S-222-080105 Grab Water Sample
SUN: Philadelphia Refinery AOI-4

Collected: 08/01/2005 09:10 by MBS

Account Number: 10132

Submitted: 08/02/2005 17:10
Reported: 08/08/2005 at 13:36
Discard: 09/08/2005

Langan
500 Hyde Park
Doylestown PA 18901

S-222

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Units	Dilution Factor
06035	Lead	7439-92-1	< 0.0010	0.0010	0.00018	mg/l	1
07879	EDB in Wastewater						
01087	Ethylene dibromide	106-93-4	< 0.029	0.029	0.0095	ug/l	1
07805	PAHs in Water by GC/MS						
03947	Naphthalene	91-20-3	< 6.	6.	1.	ug/l	1
03956	Fluorene	86-73-7	< 6.	6.	1.	ug/l	1
03963	Phenanthrene	85-01-8	< 6.	6.	1.	ug/l	1
03967	Pyrene	129-00-0	< 6.	6.	1.	ug/l	1
03971	Chrysene	218-01-9	< 6.	6.	1.	ug/l	1
Due to insufficient sample, the reporting limits for the GC/MS semivolatile compounds were raised.							
02302	UST-Waters by 8260B						
02010	Methyl Tertiary Butyl Ether	1634-04-4	< 5.	5.	0.5	ug/l	1
05401	Benzene	71-43-2	< 5.	5.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	< 5.	5.	1.	ug/l	1
05407	Toluene	108-88-3	< 5.	5.	0.7	ug/l	1
05415	Ethylbenzene	100-41-4	< 5.	5.	0.8	ug/l	1
05420	Isopropylbenzene	98-82-8	< 5.	5.	1.	ug/l	1
06310	Xylene (Total)	1330-20-7	10.	5.	0.8	ug/l	1

Commonwealth of Pennsylvania Lab Certification No. 36-037

This sample was filtered in the lab for dissolved metals.

Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	08/05/2005 20:34	David K Beck	1
07879	EDB in Wastewater	SW-846 8011	1	08/04/2005 02:52	James H Place	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	08/04/2005 00:36	Jolene M Graham	1
02302	UST-Waters by 8260B	SW-846 8260B	1	08/04/2005 00:10	Kelly E Brickley	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 4575232**S-222-080105 Grab Water Sample****SUN: Philadelphia Refinery AOI-4**

Collected: 08/01/2005 09:10 by MBS

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500 Hyde Park

Discard: 09/08/2005

Doylestown PA 18901

S-222

01163	GC/MS VOA Water Prep	SW-846 5030B	1	08/04/2005 00:10	Kelly E Brickley	n.a.
06050	ICP/MS SW-846 Water	SW-846 3010A Mod.	1	08/04/2005 09:15	Helen L Schaeffer	1
07786	EDB Extraction	SW-846 8011	1	08/03/2005 13:00	Deborah M Zimmerman	1
07807	BNA Water Extraction	SW-846 3510C	1	08/02/2005 18:30	Olivia I Santiago	1

Lancaster Laboratories Sample No. WW 4575233

S-224-080105 Grab Water Sample
SUN: Philadelphia Refinery AOI-4

Collected: 08/01/2005 09:20 by MBS

Account Number: 10132

Submitted: 08/02/2005 17:10
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Discard: 09/08/2005

Langan
500 Hyde Park
Doylestown PA 18901

S-224

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Units	Dilution Factor
06035	Lead	7439-92-1	0.0014	0.0010	0.00018	mg/l	1
07879	EDB in Wastewater						
01087	Ethylene dibromide	106-93-4	< 0.029	0.029	0.0097	ug/l	1
07805	PAHs in Water by GC/MS						
03947	Naphthalene	91-20-3	100.	5.	1.	ug/l	1
03956	Fluorene	86-73-7	< 5.	5.	1.	ug/l	1
03963	Phenanthrene	85-01-8	< 5.	5.	1.	ug/l	1
03967	Pyrene	129-00-0	< 5.	5.	1.	ug/l	1
03971	Chrysene	218-01-9	< 5.	5.	1.	ug/l	1
02302	UST-Waters by 8260B						
02010	Methyl Tertiary Butyl Ether	1634-04-4	< 10.	10.	1.	ug/l	2
05401	Benzene	71-43-2	2,000.	130.	13.	ug/l	25
05402	1,2-Dichloroethane	107-06-2	< 10.	10.	2.	ug/l	2
05407	Toluene	108-88-3	2,800.	130.	18.	ug/l	25
05415	Ethylbenzene	100-41-4	690.	130.	20.	ug/l	25
05420	Isopropylbenzene	98-82-8	44.	10.	2.	ug/l	2
06310	Xylene (Total)	1330-20-7	3,500.	130.	20.	ug/l	25

The reporting limits for the GC/MS volatile compounds were raised because sample dilution was necessary to bring target compounds into the calibration range of the system.

Commonwealth of Pennsylvania Lab Certification No. 36-037

This sample was filtered in the lab for dissolved metals.

Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	08/05/2005 20:21	David K Beck	1
07879	EDB in Wastewater	SW-846 8011	1	08/04/2005 03:52	James H Place	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	08/04/2005 01:37	Jolene M Graham	1

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Lancaster Laboratories Sample No. WW 4575233

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SUN: Philadelphia Refinery AOI-4

Collected: 08/01/2005 09:20 by MBS

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 Doylestown PA 18901

S-224

02302	UST-Waters by 8260B	SW-846 8260B	1	08/04/2005 00:32	Kelly E Brickley	2
02302	UST-Waters by 8260B	SW-846 8260B	1	08/04/2005 00:55	Kelly E Brickley	25
01163	GC/MS VOA Water Prep	SW-846 5030B	1	08/04/2005 00:32	Kelly E Brickley	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	2	08/04/2005 00:55	Kelly E Brickley	n.a.
06050	ICP/MS SW-846 Water	SW-846 3010A Mod.	1	08/04/2005 09:15	Helen L Schaeffer	1
07786	EDB Extraction	SW-846 8011	1	08/03/2005 13:00	Deborah M Zimmerman	1
07807	BNA Water Extraction	SW-846 3510C	1	08/02/2005 18:30	Olivia I Santiago	1

Lancaster Laboratories Sample No. WW 4575234

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S-223

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Units	Dilution Factor
06035	Lead	7439-92-1	< 0.0010	0.0010	0.00018	mg/l	1
07879	EDB in Wastewater						
01087	Ethylene dibromide	106-93-4	< 0.029	0.029	0.0096	ug/l	1
07805	PAHs in Water by GC/MS						
03947	Naphthalene	91-20-3	430.	26.	5.	ug/l	5
03956	Fluorene	86-73-7	< 5.	5.	1.	ug/l	1
03963	Phenanthrene	85-01-8	< 5.	5.	1.	ug/l	1
03967	Pyrene	129-00-0	< 5.	5.	1.	ug/l	1
03971	Chrysene	218-01-9	< 5.	5.	1.	ug/l	1
02302	UST-Waters by 8260B						
02010	Methyl Tertiary Butyl Ether	1634-04-4	< 50.	50.	5.	ug/l	10
05401	Benzene	71-43-2	6,100.	500.	50.	ug/l	100
05402	1,2-Dichloroethane	107-06-2	< 50.	50.	10.	ug/l	10
05407	Toluene	108-88-3	9,600.	500.	70.	ug/l	100
05415	Ethylbenzene	100-41-4	1,300.	50.	8.	ug/l	10
05420	Isopropylbenzene	98-82-8	< 50.	50.	10.	ug/l	10
06310	Xylene (Total)	1330-20-7	6,900.	50.	8.	ug/l	10

The reporting limits for the GC/MS volatile compounds were raised because sample dilution was necessary to bring target compounds into the calibration range of the system.

Commonwealth of Pennsylvania Lab Certification No. 36-037

This sample was filtered in the lab for dissolved metals.

Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	08/05/2005 20:37	David K Beck	1
07879	EDB in Wastewater	SW-846 8011	1	08/04/2005 04:51	James H Place	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	08/04/2005 02:38	Jolene M Graham	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 4575234

S-223-080105 Grab Water Sample
SUN: Philadelphia Refinery AOI-4

Collected: 08/01/2005 09:30 by MBS

Account Number: 10132

Submitted: 08/02/2005 17:10
 Reported: 08/08/2005 at 13:36
 Discard: 09/08/2005

Langan
 500 Hyde Park
 Doylestown PA 18901

S-223

07805	PAHs in Water by GC/MS	SW-846 8270C	1	08/04/2005 11:40	William T Parker	5
02302	UST-Waters by 8260B	SW-846 8260B	1	08/04/2005 01:17	Kelly E Brickley	10
02302	UST-Waters by 8260B	SW-846 8260B	1	08/04/2005 01:39	Kelly E Brickley	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	08/04/2005 01:17	Kelly E Brickley	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	2	08/04/2005 01:39	Kelly E Brickley	n.a.
06050	ICP/MS SW-846 Water	SW-846 3010A Mod.	1	08/04/2005 09:15	Helen L Schaeffer	1
07786	EDB Extraction	SW-846 8011	1	08/03/2005 13:00	Deborah M Zimmerman	1
07807	BNA Water Extraction	SW-846 3510C	1	08/02/2005 18:30	Olivia I Santiago	1

Lancaster Laboratories Sample No. WW 4575235

S96-080105 Grab Water Sample
SUN: Philadelphia Refinery AOI-4

Collected: 08/01/2005 07:20 by MBS

Account Number: 10132

Submitted: 08/02/2005 17:10
Reported: 08/08/2005 at 13:37
Discard: 09/08/2005

Langan
500 Hyde Park
Doylestown PA 18901

S96--

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Units	Dilution Factor
06035	Lead	7439-92-1	< 0.0010	0.0010	0.00018	mg/l	1
07879	EDB in Wastewater						
01087	Ethylene dibromide	106-93-4	< 0.029	0.029	0.0097	ug/l	1
07805	PAHs in Water by GC/MS						
03947	Naphthalene	91-20-3	< 5.	5.	1.	ug/l	1
03956	Fluorene	86-73-7	< 5.	5.	1.	ug/l	1
03963	Phenanthrene	85-01-8	< 5.	5.	1.	ug/l	1
03967	Pyrene	129-00-0	< 5.	5.	1.	ug/l	1
03971	Chrysene	218-01-9	< 5.	5.	1.	ug/l	1
02302	UST-Waters by 8260B						
02010	Methyl Tertiary Butyl Ether	1634-04-4	< 5.	5.	0.5	ug/l	1
05401	Benzene	71-43-2	< 5.	5.	0.5	ug/l	1
05402	1,2-Dichloroethane	107-06-2	< 5.	5.	1.	ug/l	1
05407	Toluene	108-88-3	< 5.	5.	0.7	ug/l	1
05415	Ethylbenzene	100-41-4	< 5.	5.	0.8	ug/l	1
05420	Isopropylbenzene	98-82-8	< 5.	5.	1.	ug/l	1
06310	Xylene (Total)	1330-20-7	< 5.	5.	0.8	ug/l	1

Commonwealth of Pennsylvania Lab Certification No. 36-037

This sample was filtered in the lab for dissolved metals.

Trip blank vials were not received by the laboratory for this sample group.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	08/05/2005 20:44	David K Beck	1
07879	EDB in Wastewater	SW-846 8011	1	08/04/2005 05:21	James H Place	1
07805	PAHs in Water by GC/MS	SW-846 8270C	1	08/04/2005 03:38	Jolene M Graham	1
02302	UST-Waters by 8260B	SW-846 8260B	1	08/04/2005 02:02	Kelly E Brickley	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	08/04/2005 02:02	Kelly E Brickley	n.a.
06050	ICP/MS SW-846 Water	SW-846 3010A Mod.	1	08/04/2005 09:15	Helen L Schaeffer	1
07786	EDB Extraction	SW-846 8011	1	08/03/2005 13:00	Deborah M Zimmerman	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories Sample No. WW 4575235

S96-080105 Grab Water Sample

SUN: Philadelphia Refinery AOI-4

Collected: 08/01/2005 07:20 by MBS

Account Number: 10132

Submitted: 08/02/2005 17:10

Langan

Reported: 08/08/2005 at 13:37

500 Hyde Park

Discard: 09/08/2005

Doylestown PA 18901

S96--

07807 BNA Water Extraction

SW-846 3510C

1 08/02/2005 18:30 Olivia I Santiago

1

Quality Control Summary

Client Name: Langan

Group Number: 953719

Reported: 08/08/05 at 01:37 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank LOQ**</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 052140034A Ethylene dibromide	Sample number(s): 4575232-4575235 < 0.030	0.030	0.010	ug/l	71	71	60-140	0	20
Batch number: 05214WAE026 Naphthalene	Sample number(s): 4575232-4575235 < 5.	5.	1.	ug/l	91	91	70-102	1	30
Fluorene	< 5.	5.	1.	ug/l	96	96	61-116	0	30
Phenanthrene	< 5.	5.	1.	ug/l	98	93	68-111	5	30
Pyrene	< 5.	5.	1.	ug/l	93	93	68-114	1	30
Chrysene	< 5.	5.	1.	ug/l	93	95	70-111	2	30
Batch number: 052166050001A Lead	Sample number(s): 4575232-4575235 < 0.0010	0.0010	0.00018	mg/l	105		80-120		
Batch number: L052153AA Methyl Tertiary Butyl Ether	Sample number(s): 4575232-4575235 < 5.	5.	0.5	ug/l	93	92	77-127	1	30
Benzene	< 5.	5.	0.5	ug/l	98	95	85-117	3	30
1,2-Dichloroethane	< 5.	5.	1.	ug/l	96	96	77-132	1	30
Toluene	< 5.	5.	0.7	ug/l	103	100	85-115	2	30
Ethylbenzene	< 5.	5.	0.8	ug/l	101	99	82-119	2	30
Isopropylbenzene	< 5.	5.	1.	ug/l	103	100	80-120	3	30
Xylene (Total)	< 5.	5.	0.8	ug/l	104	102	83-113	3	30

Sample Matrix Quality Control

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>BKG</u>	<u>DUP</u>	<u>DUP</u>	<u>Dup RPD</u>
Batch number: 052140034A Ethylene dibromide	Sample number(s): 4575232-4575235 100		65-135		< 0.029	< 0.029	0 (1)	30
Batch number: 052166050001A Lead	Sample number(s): 4575232-4575235 103	103	78-120	0 20	0.0014	0.0014	3 (1)	20
Batch number: L052153AA Methyl Tertiary Butyl Ether	Sample number(s): 4575232-4575235 90		69-134					
Benzene	97		83-128					
1,2-Dichloroethane	93		73-136					
Toluene	100		83-127					
Ethylbenzene	100		82-129					
Isopropylbenzene	111		81-130					
Xylene (Total)	103		82-130					

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

Quality Control Summary

Client Name: Langan
Reported: 08/08/05 at 01:37 PM

Group Number: 953719

Sample Matrix Quality Control

	MS	MSD	MS/MSD	RPD	BKG	DUP	DUP	Dup
<u>Analysis Name</u>	<u>%REC</u>	<u>%REC</u>	<u>Limits</u>	<u>RPD</u>	<u>MAX</u>	<u>Conc</u>	<u>Conc</u>	<u>RPD</u>
								<u>Max</u>

Surrogate Quality Control

Analysis Name: EDB in Wastewater
Batch number: 052140034A
1,1,2,2-
Tetrachloroethane

4575232	65
4575233	85
4575234	75
4575235	118
Blank	86
DUP	63
LCS	85
LCSD	85
MS	117

Limits: 52-120

Analysis Name: PAHs in Water by GC/MS
Batch number: 05214WAE026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
4575232	76	97	101
4575233	77	100	105
4575234	71	96	106
4575235	75	96	104
Blank	75	93	101
LCS	79	97	103
LCSD	78	101	105

Limits: 51-123 64-112 52-151

Analysis Name: UST-Waters by 8260B
Batch number: L052153AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
4575232	97	98	91	96
4575233	96	96	96	97
4575234	94	96	92	97
4575235	99	98	88	93
Blank	100	101	89	92
LCS	96	99	94	101
LCSD	97	101	94	102
MS	96	97	94	102

Limits: 81-120 82-112 85-112 83-113

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

Quality Control Summary

Client Name: Langan

Group Number: 953719

Reported: 08/08/05 at 01:37 PM

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

Analysis Request / Environmental Services Chain of Custody



For Lancaster Laboratories use only
 Act. # 1032 Group # 953719 Sample # 4575232-35 **COC #** 0087246

Please print. Instructions on reverse side correspond with circled numbers.

1 Client: <u>Sun. Pinta Aguatec/Lancaster</u> Acct. #: Project Name: <u>San. Philadelphia Refinery</u> PWSID #: Project Manager: <u>Jason Hanna (Lancaster)</u> P.O. #: Sampler: <u>M. Brad Spence</u> Quote #: Name of state where samples were collected: <u>PA</u>		2 Sample Information Sample ID: <u>S-222-080105</u> Date Collected: <u>8/1/05</u> Time Collected: <u>0910</u> Sample ID: <u>S-224-080105</u> Date Collected: <u>8/1/05</u> Time Collected: <u>0920</u> Sample ID: <u>S-223-080105</u> Date Collected: <u>8/1/05</u> Time Collected: <u>0930</u> Sample ID: <u>S96-080105</u> Date Collected: <u>8/1/05</u> Time Collected: <u>0720</u>		3 Matrix <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Sediment <input type="checkbox"/> NPDs Applicable <input type="checkbox"/> FGDs Applicable		4 Test # of Canisters 8206 BTEX, MTBE, Cumene 8011 EDB 8270C Fluorene, Phenanthrene, Naphthalene 8020 Dissolved Pb		5 Analyzed Requested FSC: _____ SCR #: _____		6 Remarks Dissolved Pb samples are unfiltered/unpreserved	
7 Turnaround Time Requested (TAT) (please circle): Normal (Rush) (Rush TAT is subject to Lancaster Laboratories approval and surcharge.) Date results are needed: <u>8/5/05</u> <u>3 DAY TAT</u> Rush results requested by (please circle): Phone Fax E-mail Phone #: _____ Fax #: _____ E-mail address: <u>j.hanna@Lancaster.Com</u>		8 Data Package Options (please circle if required) QC Summary Type VI (Raw Data) Yes No Type I (Tier I) GLP Site-specific QC required? Yes No Type II (Tier II) Other (If yes, indicate QC sample and submit triplicate volume.) Type III (NJ Red. Del.) Internal Chain of Custody required? Yes (No) Type IV (CLP)		9 Relinquished by: <u>M. Brad Spence</u> Date: <u>8/1/05</u> Time: <u>1200</u> Relinquished by: <u>M. Brad Spence</u> Date: <u>8/2/05</u> Time: <u>1025</u> Relinquished by: <u>M. Brad Spence</u> Date: <u>8/2/05</u> Time: <u>17:00</u> Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____							

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	BMQL	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	MPN	Most Probable Number
IU	International Units	CP Units	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	NTU	nephelometric turbidity units
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but \geq IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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